

ABSTRACT

To provide a battery capable of obtaining an excellent electrolyte and improved characteristics. The battery has a battery device where a positive electrode and a negative electrode are laminated with a separator in-between inside a package member. The electrolyte containing a polymer compound synthesized by polymerizing a monomer is impregnated in the separator. The synthesis of the polymer compound is inhibited by existence of Cu, thereby a negative electrode collector layer consists of foil including a metal (e.g., Ni, Cr, Au), which is not copper and does not form an alloy with lithium, or Cu foil covering the above metal. Therefore, even if the polymer compound is synthesized after fabricating the battery, polymerization can smoothly progress and content of a remained monomer can be reduced. This can prevent deterioration of battery characteristics because decomposition or reaction of the monomer is controlled even if charge and discharge are repeatedly conducted.